REMARKS

Claims 11-18 and 20-29 are pending in this application; claims 20-28 are being withdrawn from consideration. Claim 29 is newly added. Of these claims, claims 1-16 and 18 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0136503 to Green et al. in view of U.S. Patent No. 6,280,544 to Fox et al. Further, claim 17 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0136503 to Green et al. in view of U.S. Patent No. 6,280,544 to Fox et al. as applied to claims 11-16 and 18 above.

Applicant has amended claim 11 herein in order to further clarify the patentable subject matter recited in independent claim 11. Applicant respectfully requests reconsideration in view of these amendments and the following remarks. Claims 11 to 28 remain pending in the above-referenced application, of which claims 20-28 are withdrawn from consideration. Claims 11 and 14 are amended herein.

Claim 11 has been amended to recite a first measuring unit for measuring a running speed of the carrier belt; a second measuring unit for measuring a running speed of the web material; and a control device comprising control commands stored thereon matching the running speeds of the carrier belt and the web material to the predetermined speed based on the measured running speeds of the carrier belt and the web material. Support for this amendment may be found in the specification as originally filed in at least paragraph [0013] and claim 14. Claim 11 has been further amended to recite that the predetermined

speed is continuous. Support for this amendment may be found in the specification as originally filed in paragraphs [0008] and [0028] (reciting that the continuous bonding process is performed without any temporary stoppage of the carrier belt or the web).

The feature related to the wedge-shaped device, which was added by amendment on February 27, 2009, has been removed from claim 11. As such, the Applicants hereby reinstate the subject matter of original claim 19 as new claim 29 and claim 19 has been specifically cancelled above.

Claim 14 has been amended to recite the features of original claim 14 which are not recited in amended claim 11 from which it depends.

Therefore, it is respectfully submitted that the present amendments to claims 11 and 14 are fully disclosed in the original specification and original claims.

Claims 11-18 were rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Publ. No. 2003/136503 ("Green") in view of U.S. Pat. No. 6,280,544 ("Fox"). Applicants respectfully traverse these rejections. However, as noted above, independent claim 11 has been amended to recite features which clarify the features of the independent claim which are patentable over the cited references. As such, the Applicants' arguments herein are based on the clarified subject matter of claim 11.

Green does not disclose a first measuring unit for measuring a running speed of the carrier belt; a second measuring unit for measuring a running speed of the web material; and a control device comprising control commands stored

thereon for matching the running speeds of the carrier belt and the web material to the continuous predetermined speed based on the measured running speeds of the carrier belt and the web material, as recited by amended claim 11.

Applicants note that the present amendments, namely, the measuring units and the control device for controlling the web material and the carrier belt at a continuous predetermined speed, recite structural limitations to the apparatus claims, and, as such, recite subject matter which must be considered in examining the patentability of the claims. MPEP 2114.

In contrast to the invention presently claimed, Green discloses that the pitch of the sections should be different than the pitch of the RFID tags. This is because Green is directed to a method of manufacturing RFID labels using a FSA process[1]. In an FSA process, RFID sections are deposited in a "chip slurry" wherein, when the slurry is applied to a receiver surface having recesses thereon, the chips fall into place in predetermined recesses, and self-align within the recesses. Green specifically cites that a high density of chips facilitates the FSA deposition method. Namely, Green is directed to a RFID label manufacturing method in which the pitch of RFID microelectronic stock is much higher than the pitch of antennas in the label stock (i.e., the receiver surface). The higher pitch is necessary in an FSA process, because, when the chips are deposited according to the FSA method, the density of the chips in the fluid must be high enough that a chip is deposited in every or nearly every receiver surface recess. Further, Green discloses that the pitch of the RFID sections should be

[1] See Green, [0010-0012], [0059], [0076-0077].

denser than the density of the antennas, in order to reduce the manufacturing costs of the sheet containing the RFID sections.[2] Green notes that the process of cutting the RFID sections from the RFID web, handling them, and depositing them on the antenna sections in a roll-to-roll process poses various manufacturing problems, and the FSA slurry process together with the densely-packed RFID section has the advantage that such problems are avoided.[3]

> Because Green is directed to a slurry assembly method, it is further clear that Green teaches away from matching a speed of an RFID web to the speed of an antenna surface, because the relative speed of the two components, given that the pitch of the RFIDs is much higher than the pitch of the antennas, should not be matched to each other in order to avoid wasting expensive RFID components.

It is therefore clear that Green teaches away from a matched-speed roll-to-roll RFID to antenna assembly process in general.

Green teaches that the RFID sections are cut from the RFID web, and thereafter, due to the higher pitch of the RFID sections compared to the antenna web, the RFID sections must be indexed (i.e., the speed of the antenna web is controlled so as to space the RFID sections appropriately with respect to the antenna web).[4] For example, to index the RFID sections, the RFID web is periodically moved backward with respect to its normal direction of motion, and with respect to the constant direction of motion of the antenna web, in order to realign the RFID sections with the antenna. In addition, the RFID sections may be sucked into recesses on a cylindrical anvil under vacuum pressure to position the devices in the recesses of the vacuum anvil to align the sections with the

[2] See Green, [0077],[0086].
[3] Green, [0077-0078].
[4] Green, [0087-0089].

antennas, wherein the vacuum pressure is released when the RFID sections are deposited onto the antenna web.[5]

Green teaches a system directed to enabling a densely packed RFID web to be used with a less densely packed antenna web having a pitch that is matched to a pitch of the final RFID label configuration. The pitch of the antenna is configured to provide advantageous spacing with respect to a label, and the pitch of the RFID web is configured to provide economic distribution of the RFID sections (i.e., as densely packed as possible), and further to facilitate a FSA slurry deposition procedure. Therefore, it is further clear that Green provides no teaches for matching a running speed of an RFID web and an antenna web, because Green is directed to providing a method of manufacturing which allows the use of densely-packed RFID sections.

As already mentioned, in order to overcome the problems associated with different pitches on the RFID web and the antenna web, Green discloses a complicated and cost-intensive method of indexing the RFID web and the antenna web that requires backward motion resetting of the RFID web position, which results in stress on the driving equipment, more complicated control equipment, and the likelihood that the RFID web will be misaligned in the forward/backward and/or right/left directions. Further, such a backward motion resetting causes a time delay in running the RFID web stock. Further, Green discloses to provide an anvil having recesses thereon, and applying a vacuum pressure that is negative at a high point of rotation and positive at a low point of

[5] Green, [0090-0091], [0096], [0103].

rotation. A device which can change vacuum pressure from negative to positive to negative within a single rotation is cost-intensive and prone to high maintenance costs and error.

The presently claimed invention, in contrast, provides a control device and measuring units for controlling a carrier belt and a first device for transporting a web material to have speeds matching a continuous predetermined speed. Therefore, because the carrier belt and the first device are operating at a same speed, assembly of the RFID sections and the antenna sections is made simple. Further, the controller and equipment necessary for transporting the transponder devices and the RFID sections is simplified from that disclosed in Green such that cost of the equipment and maintenance of the equipment is significantly less. Finally, the operating speed of the assembly can also be improved, because the vacuum device and/or backward-jerking motion of the RFID sections is not necessary. Rather, by controlling the first device and the carrier belt to operate at a continuous and matched speed, the speed of assembly of the RFID sections and the antennas is improved by a simple and economic process which is much less maintenance-intensive than that cited in Green.

Fox, which discloses a device for applying RFID tags to labels after they have been printed and writing RFID information thereto (for example, for use with printing out of baggage identification tags), cannot disclose to control the running speeds of the RFID tags and the label stock at matched continuous speeds, because Fox is directed to printing out of single individual labels. Further, Fox

also discloses that an indexing procedure for matching the RFID tags to the desired location on the label stock should be employed.[6]

Because neither Green nor Fox disclose or suggest controlling the first device for outputting the web material and the carrier belt for transporting the transponder devices at matched continuous speeds, these references alone or in combination cannot render independent claim 1 obvious. As such, it is respectfully submitted that the claims in their present form satisfy the requirements of 35 USC § 103(a), and it is further respectfully requested that the Examiner withdraw her objections in this regard.

With regard to the Examiner's assertion that Green discloses a device which could be operated such that the devices predetermined speed, claim 1 in its amended form recites that the control device matches the speed of the carrier belt and the web material to the continuous predetermined speed. Green discloses an assembling device which is requires a complex indexing feature for correcting the pitch of the more densely distributed RFID sections so that the pitch of the RFID sections after cutting matches the pitch of the antennas. Because Green discloses a device which must constantly interrupt the speed of the RFID web and reset it to travel backwards, Green cannot disclose a device comprising a controller having control commands stored thereon to match the running speeds of the first device and the carrier belt to a predetermined continuous speed. Green discloses a device which controls the speed of the RFID web to be neither continuous nor matched to the speed of the antenna

[6] Fox, col. 7, lines 22-25.

web. Therefore, Applicants submit that claim 11 comprising the clarifying amendments presented herein recites structural features which are neither disclosed nor suggested by Green.

In view of the preceding amendments and remarks, it is therefore respectfully requested that the §103(a) rejections be withdrawn.

It is now believed that this application is in condition for allowance. If the Examiner believes that personal contact with Applicant's representative would expedite prosecution of this application, she is invited to call the undersigned at her convenience.

Applicant is filing concurrently with this Response, a Power of Attorney to Prosecute Applications before the USPTO (appointing practitioners associated with the Customer No. 72060 power of attorney and changing the Correspondence Address as identified below) along with a Statement under 37 CFR 3.73(b).

Respectfully submitted,

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Dated: 6/3/10

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